

CLAIMS

What is claimed as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. a medical device standardizing system to allow a user to safely and conveniently test and standardize diagnostic and treatment equipment and machines that provide or use beam energy comprising, in combination:

a cubic test device formed of a transparent material having a front face, a rear face, a bottom face, a top face and a pair of side faces, each being equally sized and each having an edge, each face of the six faces of the cube having a pair of etched lines also known as the central grid lines being a first distance from the cube edge, the lines thereby dividing the face up into four equally sized squares, the lines being perpendicular to each other and are equally spaced from the edges of the cube, the central grid lines intersecting in the center point of each of the faces of the cube thereby dividing each of the cube faces into four quadrants, the cube having a centrally located notch on the lower edge of the cube side, the central grid line meeting the edge of the cube at the notch thereby indicating the mid-point of that face, the face of the cube also having four peripheral grid lines etched there into, the lines being at right angles to each other and parallel to the edge and a second distance from the edge of the cube, with the peripheral grid

lines intersecting near the four corners of the face of the cube, on each of the faces, the grid lines being equidistant from the edge of the cube whereby a plurality of squares are formed on the cube face where the peripheral grid lines intersect each other and intersect the central grid lines, with the front face having a centrally located cylindrical aperture extending all the way to the rear face forming an aperture there through, the rear face of the test cube device also has four equally spaced recesses there into, with the recesses being configured to receive and hold any one of a plurality of testing cylinders, the testing cylinders each have a specific density to mimic specific tissue density, with the test device also having a plurality of small bores, known as pin holes, positioned at all intersections of the central and peripheral grid lines;

a probe cylinder being configured to be received by and held within the central aperture, the probe cylinder being configured to receive the probe of the radiation detecting and measuring device, the probe being configured and sized to couple within the central cylindrical aperture of the cubic test device;

a test device resting table having a flat plane surface to receive the cubic test device, the flat plane surface also having a plurality of indicia to enable a user to locate the test cube in the center of the resting table, the resting table having a first central finger configured to couple with a central bore on

the bottom face of the cubic test device to prevent the cubic test device from sliding on the resting table, the resting table having a plurality of leveling screws and a recess aperture on one side;

a test device level having a generally rectilinear configuration with an upper surface and a lower surface and two opposing ends with an edge disposed there between, the level having a plurality of sized recesses therein on the upper surface of each end of the level, the recesses enclosing a round radio-opaque sphere, the level also having a recess on each end with an enclosed radio-opaque pin contained therein with the ends each having indicia inscribed thereon, the level having a second central finger to couple with the recess aperture of the resting table to hold the resting table in place, the level having a pair of studs coupled to the lower surface of the level, the studs each having an associated o-ring coupled thereto;

a ruler being configured with indicia to enable the user to measure any discrepancies between a projected beam and the scored white central and peripheral grid lines of the cube thereby allowing for re-centering of the appropriate components;

a universal machine alignment tool to provide a standard centering on any one of a class of commercially available patient resting surfaces which includes X-ray table surfaces, CT scanning table surfaces and MRI scanning table surfaces, the tool having a

central locking component having a flat lower portion with an upper surface and a lower surface, the central locking component having two sides and two top lips, the central locking component having an upwardly opened C-shaped configuration with the two sides each having an upper end and a lower end and being oppositely located and upwardly projecting with the lower end of each of the sides being coupled with the flat lower portion of the central locking component with the top end of each of the sides having a top lip, the top lips being oppositely located, with the C-shaped configuration of the central locking component forming a rectangularly shaped passageway there through, the flat lower portion of the central locking component having two threaded upwardly projecting locking lug studs with the upper surface of the lower portion having a plurality of indicia and a centrally located alignment pin aperture, the alignment tool having a pair of table side end clamps with each clamp having a generally T-shaped configuration with a flat table edge lip coupled at right angles to a rectilinearly shaped adjustable portion, each adjustable portion having a slot there through, the alignment tool having a pair of locking lug nuts sized to be received by the threaded locking lug studs of the flat lower portion of the central locking component; and

a plurality of density plugs having a varying of densities to imitate the density of various body compartments, with one

density plug having the density of bone, a second density plug having the density of water, a third density plug having of the density of an inflated lung and a fourth density plug having the density of a deflated lung, thereby allowing a user to test a beam's strength against a standard density.

2. A medical device standardizing system comprising, in combination:

a cubic test device having a centrally located cylindrical aperture there through;

a probe cylinder being configured to be received by and held within the central cylindrical aperture;

a test device resting table having a flat plane surface to receive the cubic test device;

a test device resting table level;

a universal machine alignment tool having a central locking component and a pair of table side end clamps; and

a plurality of density plugs.

3. A medical device standardizing system as described in Claim 2 wherein the cubic test device further comprises a plurality of etched lines being located on each face of the six faces of the cube, with each face having a pair of etched lines also known as the central grid lines and a centrally located notch on the lower edge of the cube side, each face of the cube also having four peripheral grid lines etched there into, with

the front face having a centrally located cylindrical aperture there through, the rear face of the test cube device also has four equally spaced recesses there into, the recesses configured to receive and hold any one of a plurality of testing cylinders, the test device also having a plurality of small bores, known as pin holes, positioned at all intersections of the central and peripheral grid lines.

4. A medical device standardizing system as described in Claim 2 wherein the cubic test device further comprises a probe cylinder being configured to be received by and held within the central aperture, the probe cylinder being configured to receive the probe of the radiation detecting and measuring device, the probe being configured and sized to couple within the central cylindrical aperture of the cubic test device.

5. A medical device standardizing system as described in Claim 2 wherein the cubic test device further comprises a plurality of small bores, known as pin holes, positioned at all intersections of the central and peripheral grid lines.

6. A medical device standardizing system as described in Claim 2 wherein the cubic test device has pairs of etched grid lines dividing each face of the cube into four quadrants and four equal squares.

7. A medical device standardizing system as described in Claim 3 wherein system comprises a plurality of density plugs, each of the plugs having density to imitate tissue density.

8. A medical device standardizing system as described in Claim 7 wherein system comprises a plurality of density plugs, each of the plugs having density to imitate tissue density with a first density plug having the density of bone, a second density plug having the density of water, a third density plug having of the density of an inflated lung and a fourth density plug having the density of a deflated lung, thereby allowing a user to test a beam's strength against a standard density.

9. A medical device standardizing system as described in Claim 2 wherein system comprises a probe cylinder being configured to receive the probe of the radiation detecting and measuring device, the probe being configured and sized to couple within the central cylindrical aperture of the cubic test device.

10. A medical device standardizing system as described in Claim 2 wherein the resting table comprises a flat plane surface also having a plurality of indicia to enable a user to locate the test cube in the center of the resting table, the resting table having a first central finger configured to couple with a central bore on the bottom face of the cubic test device to prevent the cubic test device from sliding on the resting table, the resting

table having a plurality of leveling screws and a recess aperture on one side.

11. A medical device standardizing system as described in Claim 2 wherein system comprises a test device level having a second central finger to couple with the recess aperture of the resting table to hold the resting table in place.

12. A medical device standardizing system as described in Claim 2 wherein system comprises a test device level having a generally rectilinear configuration with an upper surface and a lower surface and two opposing ends with an edge disposed there between, the level having a plurality of sized recesses therein on the upper surface of each end of the level, the recesses enclosing a round radio-opaque sphere, the level also having a recess on each end with an enclosed radio-opaque pin contained therein with the ends each having indicia inscribed thereon, the level having a second central finger to couple with the recess aperture of the resting table to hold the resting table in place, the level having a pair of studs coupled to the lower surface of the level, the studs each having an associated o-ring coupled thereto.

13. A medical device standardizing system as described in Claim 2 wherein system further comprises a ruler being configured with indicia to enable the user to measure any discrepancies between a projected beam and the scored white central and

peripheral grid lines of the cube thereby allowing for re-centering of the appropriate components.